

REMARKS

In the Office Action, the Examiner indicated that claims 14-31 were pending in the application and the Examiner rejected all claims. Claim 26 has been amended. No new matter is included in this amendment. The Examiner's rejections are traversed below.

The Rejections:

Claims 14-31 are rejected under 35 U.S.C. §102(b) based upon a public use or sale of the invention. This rejection is respectfully traversed. The Examiner has presented no evidence of a public use or sale of the invention. It is respectfully requested that this rejection be withdrawn.

Apparently in the alternative, claims 14-31 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,128,855 to Hilber et al. This rejection is respectfully traversed. Anticipation requires the presence in a single prior art reference, disclosure of each and every element of the claimed invention, arranged as in the claim.

The arrangement for control of an operating installation of a building automation system disclosed by Hilber et al. does not have any failsafe input units or failsafe output units. Further, Hilber et al. do not disclose any direct bus connection between a failsafe input unit and a failsafe output unit. Hilber et al. do not disclose the claimed telegram traffic via the bus connection as claimed, i.e., "transmitting a telegram from the at least one failsafe input unit to the at least one failsafe output unit at predetermined times, the telegram including at least one useful information item, one destination code point designating an address for one of the at least one failsafe output units and one origin code designating the failsafe input unit transmitting the telegram." Further, Hilber et al. do not disclose interpretation of the telegram by the failsafe output unit, i.e., "interpreting receipt of the telegram at the predetermined times as an indication of an intact communications relationship." Finally, Hilber et al. do not disclose a reaction by the automation system, i.e., "shifting the connected peripherals into a safe state if the telegram is not received at the predetermined times," as claimed in claim 14. Claim 23 is deemed to be patentable at least for similar reasons set forth regarding claim 14.

Regarding claims 15 and 24, the Examiner refers to col. 3, lines 3-55 of Hilber et al. Col. 3, lines 3-55 describe a bus rail system generally and mention an advantage of "a reduction of the number of failure sources due to the fact that the start up and testing of the installation in order to find wiring errors is simplified." However, nothing in the portion cited by the Examiner mentions "triggering a test procedure at predetermined times; effecting a status change for at

least one input channel of at least one of the at least one failsafe input units; monitoring the status change; outputting an error message, if necessary; and canceling the effected status change at an end of the test procedure, the test procedure being completely transparent for reading out the at least one input channel," as claimed in claim 15. Claim 24 is deemed to be patentable at least for similar reasons set forth regarding claim 15.

Regarding claims 16 and 25, the Examiner refers to the abstract and Figs. 1-8 of Hilber et al. No mention is made in either the abstract or the figures of "operating the at least one input channel as an antivalent channel," as claimed in claim 16. Claim 25 is deemed to be patentable at least for similar reasons set forth regarding claim 16.

Claims 17 and 26 are deemed to be patentable at least for similar reasons set forth above regarding claims 15 and 25. Claim 26 has been amended to correctly depend from claim 25 so that "the at least one output channel" has an appropriate antecedent basis.

Regarding claims 18 and 27, the Examiner refers to the abstract, figures 1-8 and col. 5, lines 17-52 and col. 17, lines 4-35 of Hilber et al. In the portion cited by the Examiner, no mention is made of "monitoring a time sequence of the process data which is transmitted with the useful information; and driving the at least one output channel only when the time sequence of the data required for driving the at least one output channel lies within predetermined tolerances," as claimed in claim 18. Claim 27 is deemed to be patentable at least for similar reasons set forth regarding claim 18.

Regarding claims 19, 20, 28 and 29, the Examiner refers to the abstract, figures 1-8 and col. 17, lines 4-35 of Hilber et al. Although the term "watchdog" is used at col. 17, lines 17 and 19, there is no mention of what functions the "watchdog" performs. Specifically there is no disclosure of "shifting the at least one output channel into a safe state as soon as the monitoring circuit detects a malfunction of the automation system," as claimed in claims 19 and 20. Claims 28 and 29 are deemed to be patentable at least for similar reasons set forth above regarding claims 19 and 20.

Regarding claims 21, 22, 30 and 31, the Examiner refers to the abstract, figures 1-8 and col. 17, lines 4-35 of Hilber et al. Although the portion cited by the Examiner appears to include some form of error detection and signal verification, the portion does not disclose "reading back a signal supplied to the output channel; comparing the signal supplied to the output channel and the signal read back from the output channel; and shifting at least one of output channel to a safe state in response to a deviation detected by the comparison," as claimed in claims 21 and 22. Claims 30 and 31 are deemed to be patentable at least for similar reasons set for the

regarding claims 21 and 22.

Conclusion:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,
STAAS & HALSEY LLP

Date: 6/15/04

By: John H. Stowe
John H. Stowe
Registration No. 32,863

1201 New York Ave, N.W., Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501